IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Hartmut Neven, Sr.

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TITLE: Image Based Inquiry System for Search Engines for Mobile Telephones with Inserted Camera

EXAMINER: Nicholas Giles

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Dated: __April 9, 2009__   By: ___/Christopher King/___

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RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Pursuant to the requirements of 37 C.F.R. § 41.37 and in response to the Notification of Non-Compliant Appeal Brief dated April 8, 2009, please consider this document as the Appellants' Brief in the present application currently before the Board of Patent Appeals and Interferences (hereinafter "the Board").

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I. REAL PARTY IN INTEREST

The real party in interest in the present application is Google Inc., assignee of all rights and interests in the present application.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, be affected by, or have a bearing on the decision of the Board in the present appeal.

III. STATUS OF CLAIMS

Claims 1-31 are currently pending in the present application. Claims 1-8, 11-15, 17-19, and 21-28 were rejected in the Final Office Action of March 25, 2008 under 35 USC § 102(e) as allegedly being anticipated by Boncyk, WO 03/041000. Claims 9, 10, 16, and 20 were rejected under 35 USC § 103(a) as allegedly being unpatentable over Boncyk in view of Official Notice. Claims 29-31 were rejected under 35 USC § 103(a) as allegedly being unpatentable over Boncyk in view of Waibel, U.S. Patent Pub. No. 2003/0164819. Claims 11-16, 25, and 28 were rejected under 35 USC § 112, second paragraph.[1]

The rejections of claims 1-31 are hereby appealed..

IV. STATUS OF AMENDMENTS

All claim amendments submitted to the Examiner during prosecution of the present application have been entered. The claims involved in the present appeal are set forth in the

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[1] After the Office Action of March 25th, claims 11, 28, 29, and 31 were amended on May 29, 2008 to correct minor typographical errors leading to rejections under § 112. The Advisory Action of June 18, 2008 stated that the amendments were entered for purposes of appeal, and that the amendments corrected the § 112 rejections. Thus, claims 11-16, 25, and 28 meet the requirements of § 112, second paragraph, and the rejection under § 112 is not at issue in this appeal.

Claims Appendix, in Section VIII.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

In general, embodiments of the claimed invention involve associating a symbolic identifier with an input image and providing the symbolic identifier to the search engine as a query.

1.   Independent Claim 1

Independent claim 1 is directed to a system for image-based information retrieval from search engines, characterized by

a) a terminal with a built-in camera that is connected to a remote data transmission network (*See, e.g.,* Specification paragraph 0003, FIG. 1);

b) a server computer on which an object recognition program is running, which analyses images sent to it and provides them with a symbolic indexing (*See, e.g.,* Specification, paragraph 0003);

c) a search engine that uses the indexed image to find information about the image and sends it back to the terminal (*See, e.g.,* Specification, paragraph 0013).

2.   Independent Claim 11

Independent claim 11 is directed to a computer implemented system for image-based searching, comprising:

(i) a computer server, communicatively coupled with a network, that receives an input

image from a user device communicatively coupled with the network (*See,*

e.g., Specification paragraph 0003, FIG. 1);

(ii) an image recognition system executed by the computer server (*See, e.g.,*

Specification, paragraphs 0003) and adapted to:

(iii) determine a plurality of graphical attributes of the input image (*See,*

e.g., Specification, paragraph 0006);

(iv) match the input image to a reference image from a plurality of

reference images stored in a storage medium, based on the

plurality of graphical attributes of the input image and the

reference images, each of the reference images having an

associated symbolic identifier (*See, e.g.,* Specification, paragraphs

0005, 0006, and 0014); and

(v) associate a symbolic identifier to the input image based on the

symbolic identifier associated with the matching reference image

(*See, e.g.,* Specification, paragraph 0013);

(vi) a search engine executed by the computer server and adapted to receive a query

and to retrieve a set of search results associated with the query (*See, e.g.,*

Specification, paragraph 0013); and

(vii) a query processing system executed by the computer server (*See, e.g.,*

Specification paragraph 0013, FIG. 1) and adapted to:

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(viii) receive the symbolic identifier of the input image from the image recognition system (*See, e.g.,* Specification, paragraphs 0003 and 0013);

(ix) provide the symbolic identifier to the search engine as a query, and to receive a set of search results associated with the symbolic identifier (*See, e.g.,* Specification, paragraphs 0003 and 0013); and

(x) transmit, via the network, a plurality of the search results to the user device (*See, e.g.,* Specification, paragraphs 0003 and 0013).

3.   Independent Claim 17

Independent claim 17 is directed to a computer implemented method for image-based searching, comprising:

(i) receiving at a computer server, an input image from a user device remotely located from the server (*See, e.g.,* Specification paragraph 0003, FIG. 1);

(ii) providing from the computer server the input image to an image recognition system (*See, e.g.,* Specification, paragraphs 0003);

(iii) receiving at the computer server from the image recognition system a symbolic identifier associated with the input image (*See, e.g.,* Specification, paragraph 0013);

(iv) providing from the computer server the symbolic identifier to a search engine as a query (*See, e.g.,* Specification, paragraph 0013);

(v) receiving at the computer server from the search engine a set of search results associated with the symbolic identifier (*See, e.g.,* Specification, paragraphs 0003 and 0013); and

(vi) transmitting from the computer server a plurality of the search results to the user device (*See, e.g.,* Specification, paragraphs 0003 and 0013).

4.   Independent Claim 18

Independent claim 18 is directed to a computer implemented method for image-based searching at a computer server, the method comprising:

(i) receiving an input image from a user device remotely located from the server (*See, e.g.,* Specification, 0003, FIG. 1);

(ii) determining a plurality of graphical attributes represented in the input image (*See, e.g.,* Specification, paragraph 0006);

(iii) matching the input image to a reference image from a plurality of reference images stored in a storage medium, based on the plurality of graphical attributes of the input image and the reference images, each of the reference images having an associated symbolic identifier (*See, e.g.,* Specification, paragraphs 0005, 0006, and 0014); and

(iv) associating a symbolic identifier to the input image based on the symbolic identifier associated with the matching reference image (*See, e.g.,* Specification, paragraph 0013);

(v) processing the symbolic identifier as search query to retrieve, from a search

engine, a set of search results associated with the symbolic identifier (*See,*

e.g., Specification, paragraphs 0003 and 0013); and

(vi) transmitting a plurality of the search results to the user device (*See, e.g.,*

Specification, paragraphs 0003 and 0013).

5.   Independent Claim 28

Independent claim 28 is directed to a computer implemented method for image-based

searching of product information, comprising:

(i) receiving an input image from a user device remotely located from the computer

server (*See, e.g.,* Specification, paragraph 0003, FIG. 1);

(ii) processing the input image of a manufactured product on an image recognition

system to obtain a symbolic identifier identifying the manufactured product in

the input image, the symbolic identifier comprising at least one of a product

name or a product identification number, or a product code (*See, e.g.,*

Specification, paragraphs 0010, 0003 and 0013);

(iii) providing the symbolic identifier associated with the input image to the search

engine as a query (*See, e.g.,* Specification, paragraphs 0003 and 0013);

(iv) receiving a set of search results associated with the symbolic identifier, the search

results including at least one document descriptive of the manufactured

product in the input image (*See, e.g.,* Specification, paragraphs 0003 and

0013); and

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(v) transmitting via the network, a plurality of the search results to the user device

(*See, e.g.,* Specification, paragraphs 0003 and 0013).

6.   Independent Claim 29

Independent claim 29 is directed to a computer implemented method for image-based identification of buildings, comprising:

(i) receiving an input image of a building from a user device remotely located from the computer server (*See, e.g.,* Specification paragraphs 0003 and 0008, FIG. 1);

(ii) processing the input image of the building on an image recognition system executed by the computer server to obtain a symbolic identifier identifying the building in the input image, the symbolic identifier comprising at least one of a building name or a building location (*See, e.g.,* Specification paragraph 0003, 0013, and 0008, FIG. 1);

(iii) providing the symbolic identifier associated with the input image to a search engine as a query (*See, e.g.,* Specification, paragraph 0013);

(iv) receiving a set of search results associated with the symbolic identifier, the search results including at least one document descriptive of the building in the input image (*See, e.g.,* Specification, paragraphs 0003 and 0013); and

(v) transmitting via the network, a plurality of the search results to the user device (*See, e.g.,* Specification, paragraphs 0003 and 0013).

7.   Independent Claim 30

Independent claim 30 is directed to a computer implemented method for image-based language translation, comprising:

(i) receiving an input image from a user device remotely located from the computer server (*See, e.g.,* Specification paragraph 0003, FIG. 1);

(ii) processing the input image on a character recognition system, executed by the computer server to obtain text data indicative of the text in the input image, the text data in a first language (*See, e.g.,* Specification, paragraphs 0011, 0003 and 0013); and

(iii) providing the text data and an indication of a user-specified second language to a translation system (*See, e.g.,* Specification, paragraphs 0011);

(iv) receiving from the translation system a translation of the text data into a second language (*See, e.g.,* Specification, paragraphs 0011); and

(v) transmitting, via the network, the translation to the user device (*See, e.g.,* Specification, paragraphs 0011).

8.   Independent Claim 31

Independent claim 31 is directed to a computer implemented method for image-based searching of human faces, comprising:

(i) receiving an input image of a human face on a computer server communicatively coupled with a network from a user device communicatively coupled with the network (*See, e.g.,* Specification, paragraph 0003, FIG. 1); and

(ii) processing the input image of the human face on a facial recognition system to obtain a symbolic identifier identifying the human face in the input image, the

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symbolic identifier comprising a name of the person having the human face in

the input image (*See, e.g.,* Specification, paragraphs 0012, 0003 and 0013);

(iii) providing the symbolic identifier associated with the input image to a search

engine as a query (*See, e.g.,* Specification, paragraphs 0003 and 0013);

(iv) receiving a set of search results associated with the symbolic identifier, the search

results including at least one document descriptive of the person in the input

image (*See, e.g.,* Specification, paragraphs 0012, 0003 and 0013); and

(v) transmitting via the network, a plurality of the search results to the user device

(*See, e.g.,* Specification, paragraphs 0003 and 0013).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for review in the present appeal are as follows:

1.   Whether Boncyk anticipates claims 1-8, 11-15, 17-19, and 21-28 under 35 U.S.C.

§ 102(e).

2.   Whether Boncyk and Official Notice render claims 9, 10, 16, and 20 unpatentable

under 35 U.S.C. § 103(a).

3.   Whether Boncyk and Waibel render claims 29-31 unpatentable under 35 U.S.C. §

103(a).

VII. ARGUMENT

A.   Claims 1-8, 11-15, 17-19, and 21-28 are not anticipated by Boncyk

Independent claim 17 recites a computer implemented method for image-based searching

in which a search engine provides a set of search results in response to receipt of a symbolic

identifier. Specifically, claim 17 recites a computer implemented method for image-based

searching, comprising:

> receiving at a computer server, an input image from a user device remotely
> located from the server;
> providing from the computer server the input image to an image recognition
> system;
> receiving at the computer server from the image recognition system a symbolic
> identifier associated with the input image;
> providing from the computer server the symbolic identifier **to a search engine** as
> a query;
> receiving at the computer server **from the search engine** a set of search results
> associated with the symbolic identifier; and
> transmitting from the computer server a plurality of the search results to the user
> device.

As claimed, a computer server provides an input image to an image recognition system and receives a symbolic identifier associated with the input image. The symbolic identifier is provided to a search engine as a query, and the computer server receives from the search engine a set of results associated with the symbolic identifier. Thus, for example, the image recognition system could identify an image of the Eiffel Tower and provide the text, e.g. "Eiffel Tower," as the symbolic identifier to the search engine. The search engine then accepts the symbolic identifier "Eiffel Tower" and in response provides a list of links to web sites containing information relating to the Eiffel Tower ("a set of search results associated with the symbolic identifier"). (*See, e.g.,* paragraph 0003 of the specification).

The cited reference, Boncyk, discloses identifying an object from a database based on a digitally captured image. Boncyk fails, however, to disclose the use of a <u>search engine</u>, instead <u>only disclosing</u> retrieving objects from a traditional database. (Boncyk, page 1). The Examiner cites Boncyk 9:40-10:5, but this portion merely shows that an image <u>may be pre-associated with an URL</u>, which is returned in response to matching the image; it does not disclose providing the symbolic identifier <u>to a search engine **as a query**</u>, or receiving from the search engine a set of

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search results in response to this query, as claimed. Simply put, retrieving an image from its

URL is not searching based on symbolic identifier.

Indeed, in a later application by Boncyk himself, Application Serial No. 11/204,901, filed

August 15, 2005,[2] and a continuation-in-part of Application Serial No. 09/992,942, filed

November 5, 2001, Boncyk admits:

> Several years ago the present inventors pioneered the concept of using digitally
> captured images to identify objects within the images, and then using such
> identifications to retrieve information from various databases.
> . . .
> It was not appreciated, however, that one could integrate these concepts with the
> searching capabilities of standard Search Engines.
> . . .
> The present invention provides apparatus, systems and methods in which: . . . (c)
> the search criteria are submitted to a Search Engine to obtain information of
> interest[.] (citation, emphasis added)

Thus, Boncyk himself, as an inventor being without question one of at least ordinary skill

in the relevant art, admits that the claimed use of search engines was not "appreciated"—that is,

not suggested let alone "disclosed"—in his own earlier applications—including the Boncyk

reference replied upon by the Examiner. As noted by the Federal Circuit, "[w]hen prior art

contains apparently conflicting references, the Board must weigh each reference for its power to

suggest solutions to an artisan of ordinary skill. … The Board, in weighing the suggestive

power of each reference, must consider the degree to which one reference might accurately

discredit another." *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991). Thus Boncyk

himself expressly states in his later patent application that the integration of image identification

with the searching capabilities of standard search engines was not previously contemplated by

him, thereby discrediting his own earlier work. In this circumstance, it was clear legal error for

the Examiner to substitute his own judgment as to what Boncyk WO 03/041000 discloses over

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[2] Note that the filing date of the present application is February 20, 2004, and thus precedes the filing date of
Boncyk's Application Serial No. 11/204,901, the first Boncyk application to mention the use of search engines.

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the very admissions of Boncyk himself. Rather, the admissions of Boncyk Application 11/204,901 must be weighed when interpreting Boncyk WO 03/041000. These admissions—which are clearly against Boncyk's own interests—outweigh the Examiner's attempted interpretation of Boncyk WO 03/041000. Boncyk himself is the best judge of what his application WO 03/041000 discloses.

Thus, the rejection of independent claim 17 is legal error. Independent claims 1, 11, 18, and 28 all recite the use of a search engine and are rejected in a manner similar to that of claim 17. Thus, their rejections likewise constitute legal error for at least the same reasons discussed above.

B.   *Claims 9, 10, 16, and 20 are patentable over Boncyk and Official Notice*

Claims 9, 10, 16, and 20 depend, directly or indirectly, from independent claims 1, 11, or 18, and thus their rejections constitute legal error for at least the same reasons discussed above. Additionally, claim 10 recites that the claimed system allows "providers of information to independently make new entries in the image processing system for the purpose of allowing their data to be retrieved by means of image entry." Claims 16 and 20 recite that an image recognition server is further adapted to receive images from a user device and to store the received images as reference images. In rejecting these claims, the Examiner took official notice that it was allegedly well known in the art to update databases with new information (claim 10) and to update image databases with new images that can be searched (claims 16 and 20).

However, as noted by the court in *In re Ahlert*, "[a]ssertions of technical facts in areas of esoteric technology <u>must always be supported</u> by citation to some reference work recognized as standard in the pertinent art." *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). Similarly, the MPEP notes that "Official notice unsupported by documentary evidence

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should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of <u>instant and unquestionable demonstration</u> as being well-known." MPEP § 2144.03. The claimed receipt and storage of reference images in an image recognition system is hardly "capable of instant and unquestionable demonstration as being well-known;" rather, it is precisely the type of "esoteric technology" for which a citation to a standard reference work must be provided, as required by *Ahlert*. Thus, the present rejection of claims 10, 16, and 20, without more, is legally inadequate for this additional reason.

Note that the ultimate judgment of obviousness is a legal determination. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, at 17. Thus, an administrative guideline such as MPEP 2144.03(C), which states that an examiner should indicate that a failure to traverse an assertion of official notice implies that the alleged common knowledge taken to be admitted prior art, is not applicable in the case of appeals to the Board. Therefore, the fact that Applicant did not challenge the assertion of official notice in the initial amendment and response of January 14, 2008 does not imply that the Board may not consider the issue.

C.   *Claims 29-31 are patentable over Boncyk and Waibel*

Independent claims 29 and 31 recite the use of a search engine and were rejected in a manner similar to that of claim 17, over Boncyk in combination with Waibel. Here too, the Examiner failed to consider the admission of Boncyk Application 11/204,901. Further, the Waibel reference, cited as allegedly disclosing specific features such as text translation, no more discloses the claimed search engine than does Boncyk itself. Indeed, even the Examiner does not suggest that Waibel discloses this claimed feature. Thus, the rejections of these claims likewise constitute legal error for at least the same reasons discussed above.

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D.   Conclusion

The arguments presented herein demonstrate that claims 1-31 of the present application are patentable over the prior art of record. Therefore, Appellant respectfully requests that the Board reverse the Examiner's rejections of these claims.

Respectfully Submitted,
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Date: __April 9, 2009_____

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VIII. CLAIMS APPENDIX

The claims involved in the present appeal are as follows:

1. A system for image-based information retrieval from search engines, characterized by a) a terminal with a built-in camera that is connected to a remote data transmission network; b) a server computer on which an object recognition program is running, which analyses images sent to it and provides them with a symbolic indexing; c) a search engine that uses the indexed image to find information about the image and sends it back to the terminal.

2. The system as described under 1) that is designed for mobile telephones or portable computers that have a built-in camera.

3. A city or museum guide that uses the system described under 2) to provide a user with information about objects of which he or she has previously taken a picture.

4. The system as described under 3) in which positioning information is also used to appropriately limit the image recognition system.

5. The system as described under 2) that provides product information about products that have been previously photographed with the mobile camera.

6. The system as described under 2) in which the image recognition system is also able to recognize text characters or symbols.

7. The system as described under 2) in which the system is, in particular, able to recognize faces.

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8. The system as described under 2) that is used to provide the user with additional information about advertising billboards.

9. An electronic user handbook that uses a system as described under 2) to quickly navigate access to corresponding sections of the handbook.

10. The system as described under 2) that allows providers of information to independently make new entries in the image processing system for the purpose of allowing their data to be retrieved by means of image entry.

11. A computer implemented system for image-based searching, comprising:

a computer server, communicatively coupled with a network, that receives an input image from a user device communicatively coupled with the network;

an image recognition system executed by the computer server and adapted to:

determine a plurality of graphical attributes of the input image;

match the input image to a reference image from a plurality of reference images stored in a storage medium, based on the plurality of graphical attributes of the input image and the reference images, each of the reference images having an associated symbolic identifier; and

associate a symbolic identifier to the input image based on the symbolic identifier associated with the matching reference image;

a search engine executed by the computer server and adapted to receive a query and to retrieve a set of search results associated with the query; and

a query processing system executed by the computer server and adapted to:

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receive the symbolic identifier of the input image from the image

recognition system;

provide the symbolic identifier to the search engine as a query, and to

receive a set of search results associated with the symbolic

identifier; and

transmit, via the network, a plurality of the search results to the user

device.

12. The system of claim 11, wherein the user device comprises a mobile telephone having an integrated camera.

13. The system of claim 11, wherein:

the server receives a geographic location of the user device in association with the

input image; and

the image recognition system is further adapted to match the input image to a

reference image from the plurality of reference images based on the

geographic location of the user device.

14. The system of claim 11, wherein the image recognition system further includes a character recognition system.

15. The system of claim 11, wherein the image recognition system further includes a facial recognition system.

16. The system of claim 11, wherein the image recognition system is further adapted to:

receive a plurality of images from the user device;

store the received images as reference images; and

match an input image subsequently received from the user device to at least one of

the reference images received from the user device.

17. A computer implemented method for image-based searching, comprising:

receiving at a computer server, an input image from a user device remotely located

from the server;

providing from the computer server the input image to an image recognition system;

receiving at the computer server from the image recognition system a symbolic

identifier associated with the input image;

providing from the computer server the symbolic identifier to a search engine as a

query;

receiving at the computer server from the search engine a set of search results

associated with the symbolic identifier; and

transmitting from the computer server a plurality of the search results to the user

device.

18. A computer implemented method for image-based searching at a computer server,

the method comprising:

receiving an input image from a user device remotely located from the server;

determining a plurality of graphical attributes represented in the input image;

matching the input image to a reference image from a plurality of reference images

stored in a storage medium, based on the plurality of graphical attributes of

the input image and the reference images, each of the reference images having

an associated symbolic identifier; and

associating a symbolic identifier to the input image based on the symbolic identifier

associated with the matching reference image;

processing the symbolic identifier as search query to retrieve, from a search engine, a

set of search results associated with the symbolic identifier; and

transmitting a plurality of the search results to the user device.

19. The method of claim 18, wherein the user device comprises a mobile telephone having an integrated camera.

20. The method of claim 18, wherein the image recognition system is further adapted to:

receive a plurality of reference images from the user device;

store the received images as reference images; and

match an input image subsequently received from the user device to at least one of

the reference images received from the user device.

21. The method of claim 18, further comprising receiving a geographic location of the user device through the network.

22. The method of claim 21, wherein the image recognition system is further adapted to match the input image to a reference image from the plurality of reference images based on the geographic location of the user device.

23. The method of claim 18, wherein the image recognition system further includes a character recognition system.

24. The method of claim 18, wherein the image recognition system further includes a facial recognition system.

25. The method of claim 18, wherein the image recognition system is further adapted to enable transmission of reference images, for use by the image recognition system, to the storage medium.

26. The method of claim 18, wherein selecting a matching reference image from a plurality of reference images stored in a storage medium comprises:

        determining the graphical attributes in the input image represented by a plurality of
                trained attribute detectors;

        aggregating a plurality of confidence values received from the plurality of trained
                attribute detectors; and

        determining the matching reference image where the aggregated plurality of
                confidence values exceed a predetermined threshold value.

27. The method of claim 18, wherein the search results comprise links to websites, contact information, product information, translations of recognized characters, and other information related to the input image.

28. A computer implemented method for image-based searching of product information, comprising:

receiving an input image from a user device remotely located from the computer

server;

processing the input image of a manufactured product on an image recognition

system to obtain a symbolic identifier identifying the manufactured product in

the input image, the symbolic identifier comprising at least one of a product

name or a product identification number, or a product code;

providing the symbolic identifier associated with the input image to the search engine

as a query;

receiving a set of search results associated with the symbolic identifier, the search

results including at least one document descriptive of the manufactured

product in the input image; and

transmitting via the network, a plurality of the search results to the user device.

29. A computer implemented method for image-based identification of buildings,

comprising:

receiving an input image of a building from a user device remotely located from the

computer server;

processing the input image of the building on an image recognition system executed

by the computer server to obtain a symbolic identifier identifying the building

in the input image, the symbolic identifier comprising at least one of a

building name or a building location;

providing the symbolic identifier associated with the input image to a search engine

as a query;

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receiving a set of search results associated with the symbolic identifier, the search

results including at least one document descriptive of the building in the input

image; and

transmitting via the network, a plurality of the search results to the user device.

30. A computer implemented method for image-based language translation, comprising:

receiving an input image from a user device remotely located from the computer

server;

processing the input image on a character recognition system, executed by the

computer server to obtain text data indicative of the text in the input image,

the text data in a first language; and

providing the text data and an indication of a user-specified second language to a

translation system;

receiving from the translation system a translation of the text data into a second

language; and

transmitting, via the network, the translation to the user device.

31. A computer implemented method for image-based searching of human faces,

comprising:

receiving an input image of a human face on a computer server communicatively

coupled with a network from a user device communicatively coupled with the

network; and

processing the input image of the human face on a facial recognition system to obtain

a symbolic identifier identifying the human face in the input image, the

symbolic identifier comprising a name of the person having the human face in

the input image;

providing the symbolic identifier associated with the input image to a search engine

as a query;

receiving a set of search results associated with the symbolic identifier, the search

results including at least one document descriptive of the person in the input

image; and

transmitting via the network, a plurality of the search results to the user device.

IX. EVIDENCE APPENDIX

None

X.   RELATED PROCEEDINGS APPENDIX

None.